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(71) Applicant (for all designated States except US): **KONINKLIJKE PHILIPS ELECTRONICS N.V.** [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **DANNELS, Wayne, R.** [US/US]; 595 Miner Road, Cleveland, OH 44143 (US). **FOXALL, David, L.** [GB/US]; 595 Miner Road, Cleveland, OH 44143 (US). **DEMEESTER, Gordon, D.** [US/US]; 595 Miner Road, Cleveland, OH 44143 (US).

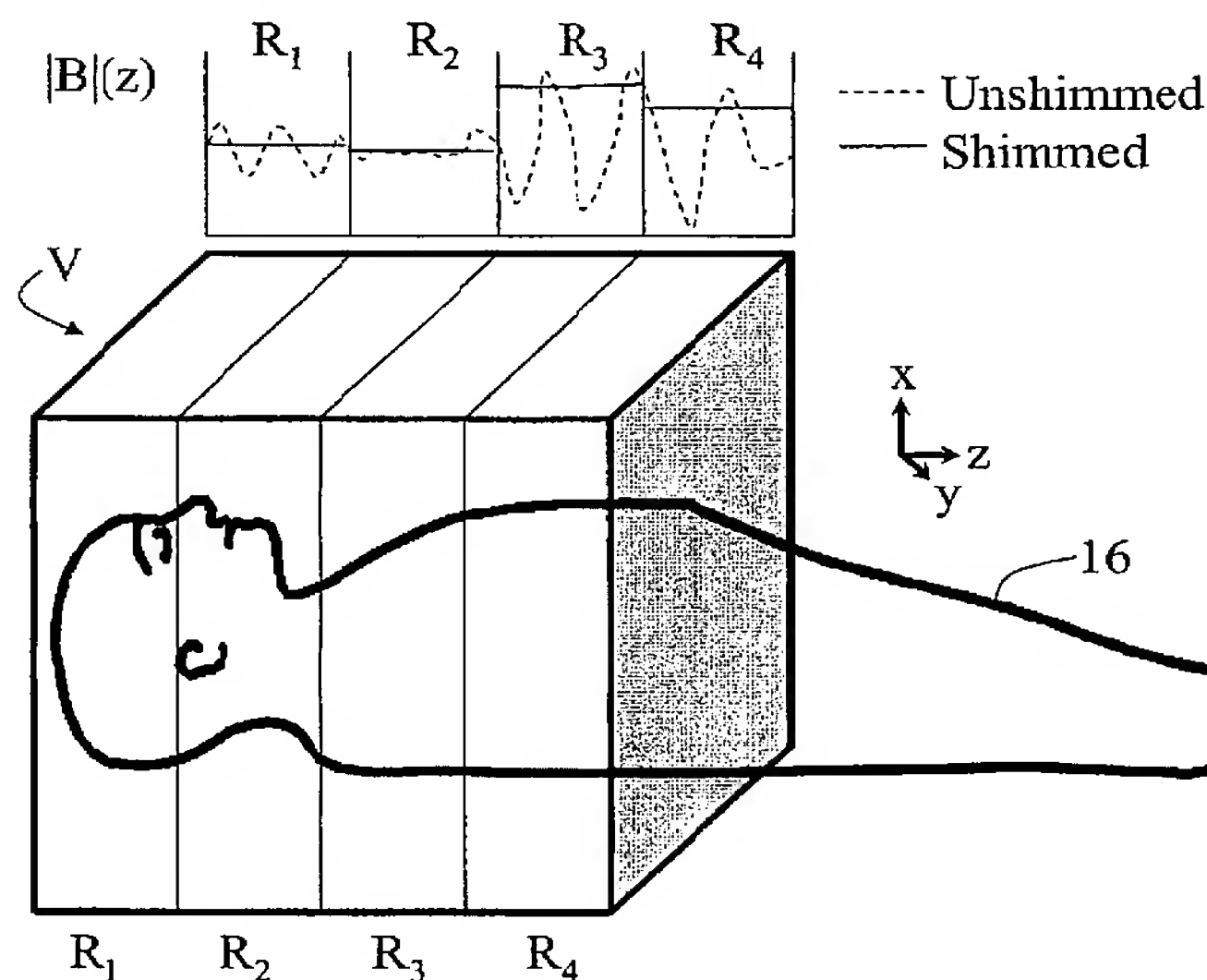
(74) Common Representative: **KONINKLIJKE PHILIPS ELECTRONICS N.V.**; c/o LUNDIN, Thomas, M., 595 Miner Road, Cleveland, OH 44143 (US).

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(54) Title: DYNAMIC SHIMSET CALIBRATION FOR B_0 OFFSET



(57) Abstract: A magnetic resonance imaging method comprising: determining a magnitude shift of a main B_0 magnetic field responsive to energizing one or more shim coils (60) at selected shim currents; energizing the one or more shim coils (60) at the selected shim currents; and performing a correction during the energizing to correct for the determined magnitude shift of the main B_0 magnetic field. Wherein the determining a magnitude shift comprises: computing one or more Maxwell terms of the magnetic field produced by energizing the one or more coils (60) at selected shim currents; and determining the magnitude shift of the main B_0 magnetic field based on the computed one or more Maxwell terms.

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**Declaration under Rule 4.17:**

— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations* AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, *ARIPO patent* (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), *Eurasian patent* (AM,

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